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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,934

08/27/2003

Stuart B. Smith

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EXAMINER

MOORE, MARGARET G

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

10/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/648,934	<b>Applicant(s)</b> SMITH, STUART B.	
	<b>Examiner</b> Margaret G. Moore	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4 to 7, 18, 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 to 7, 18, 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. Applicants' response dated 6/15/09 has been entered. In view of the remarks filed, the Examiner has withdrawn the new matter rejection regarding the language "stoichiometric excess". The new matter rejection regarding the remaining newly added language is maintained, as noted below. In addition, the Examiner has opted to make new grounds of rejection, also noted below. As such this action will not be made final.

2. Claims 1, 2, 4 to 7 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase "not an intermediate... to avoid creating a gel" is not supported by the specification. This rejection is maintained from the previous office action. The specification is silent as to any of these limitations. In addition the polyol prepolymer *is* in fact, an intermediate. It is used in a subsequent reaction, as noted by applicants in their response (page 2/3 of the remarks filed 6/15/09, 8th to the last line). Please note the definition of "intermediate" from Merriam-Webster Online Dictionary as

: being or occurring at the middle place, stage, or degree or between extremes

From this, it follows that a prepolymer that is subsequently reacted would be an intermediate as it occurs in the middle of the reaction.

3. Claims 1, 2, 4 to 7, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is intended or embraced by the phrase "not an intermediate product". A prepolymer that is subsequently reacted, as in the instant application, would qualify as an intermediate. An intermediate is something that occurs in the middle, and thus an intermediate would be a reaction product which is subsequently reacted. However, applicants attempt to use this language to distinguish the claims from an

intermediate product in the prior art. As such it is not clear what weight applicants are attempting to give this term. It is not being given its customary meaning.

It is unclear what is intended by "stabilization". Specifically it is unclear what standard is used for this measurement. For instance, does the prepolymer have to be stable in any or all systems? Is there a time limitation on the stabilization? Obviously the prepolymer is intended to be reactive in future uses so it would not be considered stable in the presence of certain compounds or under certain conditions. Applicants provide no standard for the term "stabilization".

4. The Examiner notes that the claims are being given the following "claim interpretation" for prior art purposes.

As noted above, the Examiner is not certain what weight to give the phrase "not an intermediate" but will address applicants' argument regarding this language in the rejection below.

For the language "does not require subsequent protonation" the Examiner notes that this does not prohibit subsequent protonation. It only means that the protonation is not *required*. As noted above, it is unclear what is meant by "stabilization" so it is not certain what weight to give this term.

For the phrase "solvent based" the Examiner notes that this phrase is not defined in the specification, and as such the Examiner is giving this phrase the definition known in the art. Specifically, the Examiner refers to the HMG Paints Ltd. website (see attached definition of "solvent based"). The Examiner is giving this language the meaning that the prepolymer is not dissolved in a non-aqueous solvent. This does not exclude the presence of any or all solvent from the prepolymer.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 5, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/10255, herein Herzig et al.

The basis for this rejection is consistent with that made in previous office actions.

WO 02/10255 teaches the reaction product between an epoxy siloxane and a diamine. As can be seen from column 2, lines 30 to 37, the sum of  $a+b$  is  $\leq 2$ . When the sum equals 2, the siloxane will be linear. When the sum is anything less than 2, it will be branched. Thus the teachings in this reference clearly allow for and suggest the use of a branched siloxane. In addition note column 4, line 22, which specifically teaches phenyl R groups. From this one having ordinary skill in the art would have found a branched siloxane having a phenyl group to have been obvious.

With regard to the requirement that the amine be present in a stoichiometric excess, please note column 9, lines 35 to 50, which teach a polyamine to epoxy ratio of 1:1 to 10:1. This meets the requirement of a stoichiometric excess. This also teaches that, preferably, all of the epoxy groups react which indicates an excess of amine.

With regard to the limitation that the reaction product not be solvent based, the Examiner refers applicants to column 12, lines 22 to 24, which states that the use of inert organic solvents is not preferred.

With regard to the limitation "not an intermediate product" and "does not require subsequent protonation for stabilization", as noted above it is not clear what weight to give these phrases. However, the Examiner refers applicants to the bottom of column 12 which refers to the amine containing compound (i.e. before any protonation occurs) and discusses properties thereof. It is clear from this that the reaction product, prior to protonation, is a stable and isolated product.

The Examiner also refers to the working examples. For instance, in Example 1 the reaction between the siloxane and the amine occurs in the absence of any solvent. The final product is measured for viscosity and amine number. Clearly this is an isolated product since properties are measured. In addition, the product must be stable or at least have some degree or type of stability without protonation, again, since one is able to measure properties of this product.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday and Wednesday to Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Margaret G. Moore/  
Primary Examiner, Art Unit 1796

mgm  
10/5/09